

A METHOD FOR EFFICIENTLY DETERMINING A DNA STRAND BREAK
ABSTRACT OF THE DISCLOSURE

The present invention is directed to directly measure distribution in vivo and the frequency of generation in vivo of DNA strand breaks which induce cell death and mutations. The present inventors accomplished the present invention by providing a method for detecting a DNA strand break in a sample, which comprises a step of binding a PprA protein derived from Deinococcus radiodurans to a DNA strand break and a step of detecting the PprA protein which is bound to the DNA strand break; as well as by providing a kit for detecting a DNA strand break in a sample which comprises PprA proteins derived from Deinococcus radiodurans and a means for detecting a PprA protein which is bound to a DNA strand break.